REMARKS

I. Introduction

In response to the Office Action dated April 24, 2008, claims 3-4, 6-7, 10-11 and 13-14 have been amended. Claims 3-7 and 10-14 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Claim Objections

On page 3, the Office Action objected to the claims as being crowded too closely together.

Applicants' attorney believes that this may be an artifact of the facsimile transmission of the previous response, because the claims in the previous response were spaced at 1.5 lines in the original document. Applicants' attorney also submits this response with the claims spaced at 1.5 lines.

Also on page 3, the Office Action objected to claims 1, 6 and 11 due to certain informalities.

Applicants' attorney has amended claims 1, 6 and 11 to overcome these objections.

III. Statutory Subject Matter Rejections

On pages 3-4, the Office Action rejected claims 10-14 under 35 U.S.C. §101 as being directed to non-statutory subject matter.

Applicants' attorney has amended claims 10-14 to overcome the rejections, in the interest of expediting prosecution. Should issues still remain in this regard, Applicants' attorney requests that the Examiner indicate how the rejection can be overcome, in accordance with the directives of the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (Guidelines) II. See also M.P.E.P. §2106. Specifically, should it be necessary, the Applicants' attorney requests that the Examiner identify features of the invention that would render the claimed subject matter statutory if recited in the claim. See Guidelines IV.B. See also M.P.E.P. §2106.

IV. Prior Art Rejections

A. The Office Action Rejections

On pages 5-17 of the Office Action, claims 3-7 and 10-14 were rejected under 35 U.S.C. §102(b) as being anticipated by Bonney et al., U.S. Patent No. 6,466,953 (Bonney).

Applicants' attorney respectfully traverses these rejections.

B. The Bonney Reference

Bonney describes an information display device capable of displaying logical display planes includes a first part for storing items of display plane forming information respectively defined for the logical display planes, and a second part for displaying the logical display planes on a screen part in accordance with the items of the display plane forming information, wherein the items of the display plane forming information of logical display planes that have a hierarchical relationship include information describing the hierarchical relationship and commonly own attribute information concerning a component commonly used in the logical display planes having the hierarchical relationship.

C. Claims 3-7 and 10-14 Are Patentable Over Bonney

The Applicants' invention, as recited in the amended independent claims, is patentable over the Bonney reference, because it recites a specific combination of elements not shown by the reference.

The Office Action, on the other hand, asserts that all the elements of the independent claims are shown in Bonney. However, when placed in context, Bonney teaches something different than Applicants' invention.

1. Bonney does not describe a Sheet Set Manager that manages Sheet Sets, Subsets of Sheets, and Sheets.

The Office Action asserts that Bonney teaches a CAD program capable of performing the functions of a Sheet Set Manager. At the locations indicated by the Office Action, however, Bonney merely describes drawings generally, where a drawing may include views and may be comprised of multiple sheets.

Consider, the description in Bonney found at the following cited locations:

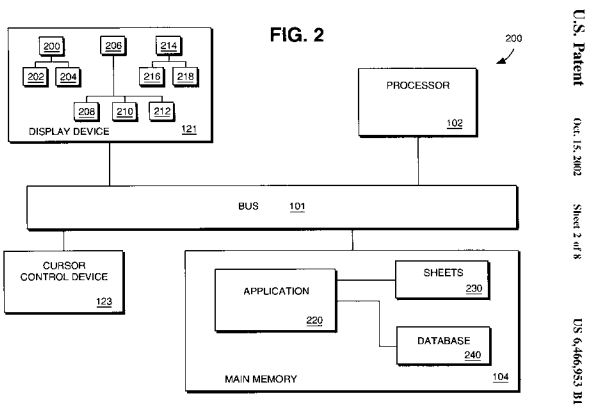
> Bonney: Abstract
>
> The invention includes computer instructions that receive an indication of a manipulation of one or more graphical icons by a user, where the graphical icons are interrelated to one another representing a hierarchical relationship among multiple objects of one or more sheets, and the sheets are included within a drawing by a computer aided design (CAD) application program. The computer instructions operate to automatically modify at least sheet order information included within the objects of the one or more sheets reflecting the hierarchical relationship among the multiple objects of one or more sheets based, at least in part, upon the received

indication. As a result, hierarchical information on multiple drawing sheets are dynamically updated when a user modifies the hierachical structure of the drawing sheets by manipulation icons representing the multiple drawing sheets, thereby saving the user effort in tracking the order information and opening each drawing sheet to modify the hierarchical information displayed on the drawing sheets. In one embodiment, the CAD application, including the computer instructions, is embodied in a distribution storage medium.

Bonney: col. 1, lines 26-36

Drawings, in general, may include many details of the models such as, but not limited to, alternative views, section views, detail views of certain aspects of each of the models, and in particular, assembly views to illustrate mating components of each of the models. Because so many aspects of the model(s) may be included within the drawing, the drawing may include many sheets, where each sheet illustrates a certain detail of a model. Depending upon the complexity of designs, a drawing may include numerous sheets showing many details.

Bonney: Fig. 2



However, consider also the following portions of Bonney:

Bonney: col. 4, lines 25-62

As processor 102 executes sequences of instructions that define application 220, sheets 230 can be created, modified and/or deleted. Application 220 further includes sequences of instructions to graphically display and modify a relationship among sheets 230 on display device 121. In one embodiment, a user via cursor control device 123, or other device can manipulate graphical icons representing one or more of sheets 230, as well as other icons.

If, for example, application 220 is a CAD application, icons 202 and 204 can represent sheets stored in main memory 104 that describe in greater detail some component of the sheet corresponding to icon 200. The sheets corresponding to icons 206, 208, 210, 214, 216 and 218 can have similar relationships. Of course, other

types of applications that generate objects that can have hierarchical relationships can be used for application 220.

In one embodiment, the relationship between two or more sheets can be manipulated graphically by using cursor control device 123. In the example of FIG. 2, icons 202 and 204 are child objects to icon 200. Similarly, icons 208, 210 and 212 are child objects to icon 206 and icons 216 and 218 are child objects to icon 214. In one embodiment, hierarchical relationships between sheets can be created, modified and/or deleted by dragging and dropping icons displayed on display device 121.

In addition to displaying hierarchical relationships between icons, application 220 can also include information about sheets 230 associated with the corresponding icons. In one embodiment, the information is updated dynamically in response to a user modifying a sheet. For example, various sheets of a drawing can have a revision number associated with the sheet and the icon corresponding to the sheet can include the revision number for display on display device 121. When the revision number is modified for the sheet stored in main memory, the revision number displayed on the icon is automatically updated. Of course, automatic update of information is not limited to revision numbers, part numbers, etc.

The cited portions of Bonney do not describe a Sheet Set Manager that manages one or more Sheet Sets, Subsets of Sheets, and Sheets, wherein each of the Sheet Sets comprises a collection of the Subsets and the Sheets, each of the Subsets comprises a collection of the Sheets, and each of the Sheets comprises a drawing, layout or view. Moreover, the cited portions of Bonney do not describe a Sheet Set Manager that displays a window that presents a logical structure for the Sheet Sets, Subsets, and the Sheets, in a visual form on the computer comprising a hierarchical tree representation of the Sheet Sets that shows different nodes for the Sheet Sets, the Subsets and the Sheets contained within the Sheet Sets, as well as the Sheets contained within the Subsets.

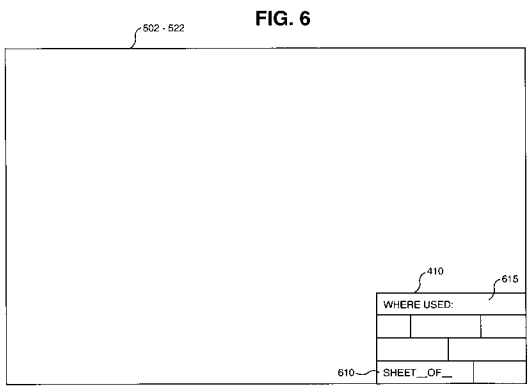
Instead, the hierarchical relationship shown in FIG. 2 of Bonney refers only to relationships between sheets, i.e., each icon 200-218 in FIG. 2 is a sheet. For example, icons 200, 206 and 214 are not Sheet Sets or Subsets of Sheets containing their respective Sheets. Instead, icons 200, 206 and 214 are merely Sheets. There is no way to interpret FIG. 2 of Bonney as showing Sheet Sets containing both Subsets and Sheets, or Subsets containing Sheets, except by ignoring the definition of those terms. Certainly, Bonney itself never refers to Sheet Sets, Subsets, and Sheets, as those terms are defined in Applicants' claims and specification.

2. Bonney does not describe a "Sheet List" function as recited in independent claims 3 and 10.

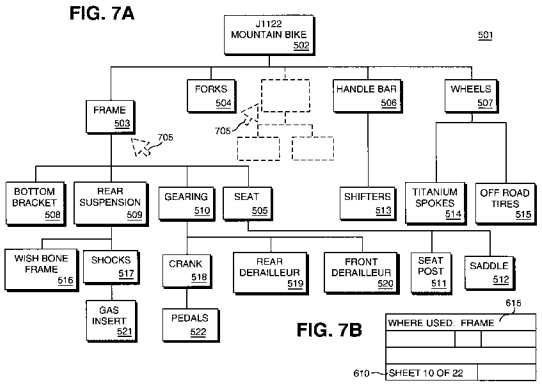
The previous Office Action dated November 26, 2007 admitted that Bonney did not teach a "Sheet List" function, but instead asserted that Wucherer taught these claim elements. Now, the

current Office Action dated April 24, 2008 asserts that Bonney teaches the claim limitations directed to "the Sheet Set Manager is displayed as a window that includes a 'Sheet List' function for displaying a page-by-page summary of the Sheet Sets, the Subsets contained within the Sheet Sets, and the Sheets contained within the Sheet Sets and the Subsets," in Title block 410, order field 610 and where-used field 615, which are described in the following portions of Bonney:

Bonney: Fig. 6



Bonney: Fig. 7b



Bonney: col. 7, lines 9-51

FIG. 6 illustrates a hierarchical relationship among multiple objects of one or more sheets, in accordance with the invention. In FIG. 6, the drawing sheets 501-522 of the drawing 500 including title block 410 (shown in FIG. 4) has a field for a drawing sheet order 610 and a WHERE USED field 615. The drawing sheet order field 610 indicates information regarding the total number of drawing sheets for a drawing and a position of the drawing sheet within the total number of drawing sheets, for example, SHEET 2 OF 22. The WHERE USED field 615 indicates

information regarding where the particular component shown in a particular sheet is used, for example, referring back to FIG. 5, for the REAR SUSPENSION drawing sheet 509, the WHERE USED field 615 may contain information such as, but not limited to, FRAME. That is, the REAR SUSPENSION drawing sheet 509 is one of the children of the parent, FRAME drawing sheet 503. In turn, the WHERE USED field 615 for the FRAME drawing sheet 503 may contain information such as, but not limited to, J1122 MOUNTAIN BIKE, indicating that the FRAME drawing sheet 503 is a child of the parent, J1122 MOUNTAIN BIKE drawing sheet 502, and so forth. In the illustrated embodiment, the WHERE USED field 615 indicates a hierarchical relationship where the drawing sheet immediately above a drawing sheet is a parent drawing sheet; however, it should be appreciated that the hierarchical relationship is based at least on the hierarchical relationships created by the user.

The drawing sheet order field 610 for each of the drawing sheets 502-522 (shown in FIG. 5) may be ordered from left to right of the drawing sheet 501 showing the hierarchical relationship among the components. For example, FRAME drawing sheet 503 may have, within the drawing sheet order field 610, the information, SHEET 3 OF 22, FORKS drawing sheet 504 may have, within the drawing sheet order field 610, the information, SHEET 4 OF 22, WHEELS drawing sheet 507 may have, within the drawing sheet order field 610, the information, SHEET 7 OF 22, and so forth. Shown in FIG. 5, the drawing sheet order is from left to right; however, it should be appreciated by those skilled in the art that the drawing sheet order may be based at least in part on the designer.

Bonney: col. 7, lines 1-48

In one embodiment shown in FIG. 7b, based at least on the manipulation of the drawing sheets 502-522 that change the hierarchical relationship among the drawing sheets 502-522, the WHERE USED field 615 and the drawing sheet order field 610 are dynamically updated to reflect the new hierachical relationship among the drawing sheets 502-522.

In FIG. 7b, the drawing sheet order field 610 for SEAT drawing sheet 505 is modified to indicate that the SEAT drawing sheet 505 is now SHEET 10 OF 22. The SEAT drawing sheet 505 order is modified to SHEET 10 OF 22 because, as discussed above, the user selected to order the drawing sheets 502-522 from left to right. Previous to the manipulation of the icons representing the drawing sheets 502-522, the SEAT drawing sheet 505 was ordered as SHEET 5 OF 22. Accordingly, the SEAT POST drawing sheet 511 and the SADDLE drawing sheet 512 orders are modified from SHEET 11 OF 22 and SHEET 12 OF 22 to SHEET 19 OF 22 and SHEET 20 OF 22, respectively. Furthermore, in one embodiment, the drawing sheet order fields of all of the drawing sheets 502-522 may be modified to reflect the change in the hierarchical relationship among the drawing sheets 502-522.

The WHERE USED field 615 of the SEAT drawing sheet 505 is also modified to reflect that the change in the hierarchical relationships among the drawing sheets 502-522. As shown in FIG. 7b, the WHERE USED field 615 of the SEAT drawing sheet 505 is modified from J1122 MOUNTAIN BIKE to FRAME indicating that the immediate parent of the SEAT drawing sheet 505 is the FRAME drawing sheet 503. However, the WHERE USED fields of the SEAT POST drawing sheet 511 and the SADDLE drawing sheet 512 remain the SEAT because the SEAT POST drawing sheet 511 and the SADDLE drawing sheet 512 remains the child of

the SEAT drawing sheet 505, i.e., their hierarchical relationships are maintained. In changing the hierarchical structure, as described, utilizing the FRAME drawing sheet 503 and the SEAT drawing sheet 505 in a different bicycle assembly may be facilitated, for example, same components of the FRAME and the SEAT may be part of another model of bicycle.

As a result, hierarchical information on multiple drawing sheets are dynamically updated when a user modifies the hierarchical structure of the drawing sheets by manipulating icons representing the multiple drawing sheets, thereby saving the user effort in tracking the relationship, opening each manipulated drawing sheet, and modifying the hierarchical information displayed on the drawing sheets.

The cited portions of Bonney do not describe a Sheet Set Manager that is displayed as a window that includes a 'Sheet List' function for displaying a page-by-page summary of the Sheet Sets, the Subsets contained within the Sheet Sets, and the Sheets contained within the Sheet Sets and the Subsets."

Instead, the cited portions of Bonney merely describe fields that are stored by the system in Bonney, including a drawing sheet order 610 that indicates information regarding the total number of drawing sheets for a drawing and a position of the drawing sheet within the total number of drawing sheets, and a where-used field 615 that indicates information regarding where the particular component shown in a particular sheet is used.

Moreover, these portions of Bonney do not show Sheet Sets containing both Subsets and Sheets, or Subsets containing Sheets. In addition, Bonney never refers to Sheet Sets, Subsets, and Sheets, as those terms are defined in Applicants' claims and specification.

3. Bonney does not describe a "View List" function as recited in independent claims 4 and 11.

The previous Office Action dated November 26, 2007 admitted that Bonney did not teach a "View List" function, but instead asserted that Wucherer taught these claim elements. Now, the current Office Action dated April 24, 2008 asserts that Bonney teaches the claim limitations directed to "the Sheet Set Manager is displayed as a window that includes a 'View List' function for managing views of the Sheets in the Subsets and the Sheet Sets," at col. 1, lines 26-30; col. 4, lines 41-49; and FIG. 5, which are reproduced below:

Bonney: col. 1, lines 26-36

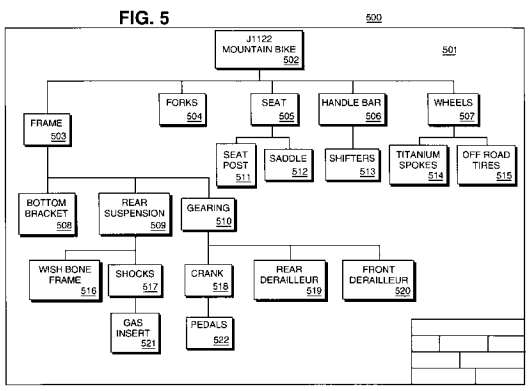
Drawings, in general, may include many details of the models such as, but not limited to, alternative views, section views, detail views of certain aspects of each of the models, and in particular, assembly views to illustrate mating components of

each of the models. Because so many aspects of the model(s) may be included within the drawing, the drawing may include many sheets, where each sheet illustrates a certain detail of a model. Depending upon the complexity of designs, a drawing may include numerous sheets showing many details.

Bonney: col. 4, lines 41-49

In one embodiment, the relationship between two or more sheets can be manipulated graphically by using cursor control device 123. In the example of FIG. 2, icons 202 and 204 are child objects to icon 200. Similarly, icons 208, 210 and 212 are child objects to icon 206 and icons 216 and 218 are child objects to icon 214. In one embodiment, hierarchical relationships between sheets can be created, modified and/or deleted by dragging and dropping icons displayed on display device 121.

Bonney: Fig. 5



The cited portions of Bonney do not describe a Sheet Set Manager that is displayed as a window that includes a 'View List' function for managing views of the Sheets in the Subsets and the Sheet Sets.

As noted above, the cited portions of Bonney do not describe Sheet Sets, Subsets, and Sheets. Instead, the hierarchical relationship shown in FIG. 5 of Bonney refers only to relationships between sheets, i.e., each icon 502-522 in FIG. 5 is a sheet. In addition, Bonney never refers to Sheet Sets, Subsets, and Sheets, as those terms are defined in Applicants' claims and specification.

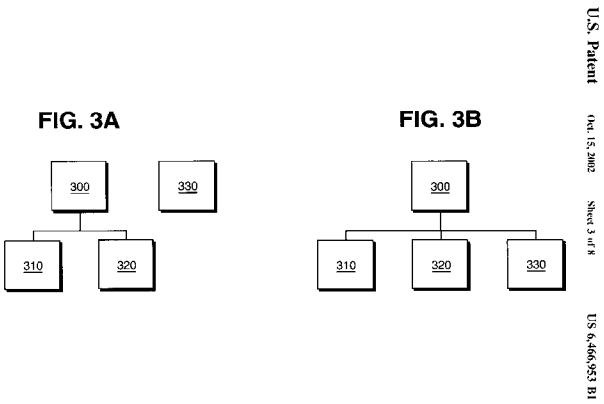
4. Bonney does not describe a "Resource Drawings" tab as recited in independent claims 6 and 13.

The previous Office Action dated November 26, 2007 admitted that Bonney did not teach a "Resource Drawings" function, but instead asserted that Wucherer taught these claim elements. Now, the current Office Action dated April 24, 2008 asserts that Bonney teaches the claim

limitations directed to "the Sheet Set Manager is displayed as a window that includes a 'Resource Drawings' function for accessing files underlying the Sheets in the Subsets and the Sheet Sets," at col. 6, lines 13-20 and FIG. 3, which are reproduced below:

> Bonney: col. 6, lines 13-20
>
> It is important to note that sheets may be moved between files. For example, the sheets represented by icons 310, 320 and 330 may originally have been stored in a file while the sheet represented by icon 330 may have been stored in a separate file. After the user drags icon 330 to icon 310, the sheet represented by icon 330 is moved to the file containing the four sheets represented by icons 310, 320 and 330. Thus, a user may move sheets between files graphically.

Bonney: Fig. 3



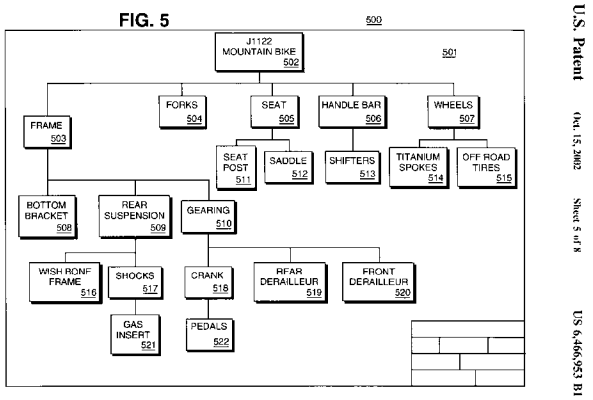
As noted above, the cited portions of Bonney do not describe Sheet Sets, Subsets, and Sheets. Instead, the hierarchical relationship shown in FIGS. 3A and 3B of Bonney refers only to relationships between sheets, i.e., each icon 300-330 in FIGS. 3A and 3B is a sheet. In addition, Bonney never refers to Sheet Sets, Subsets, and Sheets, as those terms are defined in Applicants' claims and specification.

5. Bonney does not describe allowing the viewing of the Sheet Sets, Subsets, and Sheets as an organized collection of graphical thumbnail previews or properties as recited in independent claims 7 and 14.

The previous Office Action dated November 26, 2007 admitted that Bonney did not teach allowing the viewing of the Sheet Sets, Subsets, and Sheets as an organized collection of graphical thumbnail previews or properties, but asserted that Song taught these claim elements. Now, the

current Office Action dated April 24, 2008 asserts that Bonney teaches the claim limitations directed to "the Sheet Set Manager provides a function for displaying the Sheet Sets, Subsets and Sheets as an organized collection of graphical thumbnail previews or properties," in FIG. 5, which are reproduced below:

Bonney: Fig. 5



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The cited portions of Bonney do not describe a Sheet Set Manager that provides a function for displaying the Sheet Sets, Subsets, and Sheets as an organized collection of graphical thumbnail previews or properties.

Specifically, FIG. 5 of Bonney only includes titles for the respective sheets, but not graphical thumbnail previews or properties, as those terms are understood in the art, namely a small-size graphical representation of the underlying drawing.

Moreover, as noted above, the cited portions of Bonney do not describe Sheet Sets, Subsets, and Sheets. Instead, the hierarchical relationship shown in FIG. 5 of Bonney refers only to relationships between sheets, i.e., each icon 502-522 in FIG. 5 is a sheet. In addition, Bonney never refers to Sheet Sets, Subsets, and Sheets, as those terms are defined in Applicants' claims and specification.

V. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited.

Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

It is believed that no fees are due at this time. Nonetheless, should any charges be deemed necessary, please charge any such fees, or credit any overpayments, to Deposit Account No. 50-0494 of Gates & Cooper LLP.

Respectfully submitted,

GATES & COOPER LLP
Attorneys for Applicants

Howard Hughes Center
6701 Center Drive West, Suite 1050
Los Angeles, California 90045
(310) 641-8797

Date: July 24, 2008

By: /George H. Gates/
Name: George H. Gates
Reg. No.: 33,500

GHG/

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